

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference APM:JN:FP13131	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU00/00945	International Filing Date (day/month/year) 9 August 2000	Priority Date (day/month/year) 30 August 1999
International Patent Classification (IPC) or national classification and IPC Int. Cl. <sup>7</sup> A47L 5/36, 7/00, 9/02, 11/30; B08B 5/04; E01H 1/00		
Applicant OLSEN, Garry Roy		

This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheet(s).

3. This report contains indications relating to the following items:

- |      |   |
|------|---|
| I    | <input checked="" type="checkbox"/> Basis of the report   |
| II   | <input type="checkbox"/> Priority   |
| III  | <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| IV   | <input type="checkbox"/> Lack of unity of invention   |
| V    | <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| VI   | <input type="checkbox"/> Certain documents cited  |
| VII  | <input type="checkbox"/> Certain defects in the international application   |
| VIII | <input type="checkbox"/> Certain observations on the international application  |

Date of submission of the demand 21 February 2001	Date of completion of the report 20 June 2001
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  D.R. LUM Telephone No. (02) 6283 2544

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU00/00945

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

☐ the international application as originally filed.

☒ the description, pages 1, 3-9, as originally filed,  
pages , filed with the demand,  
pages 2, received on 21 May 2001 with the letter of 18 May 2001

☒ the claims, pages , as originally filed,  
pages , as amended (together with any statement) under Article 19,  
pages 10-12, filed with the demand,  
pages 10-12, received on 21 May 2001 with the letter of 18 May 2001

☒ the drawings, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of

☒ the sequence listing part of the description:

pages 1-6, as originally filed  
pages , filed with the demand  
pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
These elements were available or furnished to this Authority in the following language which is:☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, was on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages☐ the claims, Nos.☐ the drawings, sheets/fig.5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU00/00945

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-18	YES
	Claims	NO
Inventive step (IS)	Claims 1-18	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-18	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)**

Claims 1-18 meet the criteria set forth in PCT Article 33(2)-(4) for novelty, inventive step and industrial applicability. The prior art published before the priority date does not disclose a passage having one end that opens on to a recess and that the one end is located inboard of an outer edge of the recess.

10/070112

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JC19 Rec'd PCT/PTO 28 FEB 2002

Summary of the Invention

It is an object of the present invention to provide a suction head and a recovery system incorporating said head that can be used to draw or recover a flowable substance such as a liquid from a surface.

According to a first aspect of the present invention there is provided a suction head for lifting a flowable substance from a surface, said suction head including at least:

a base for placement on the surface, the base having a radially outer peripheral

10 edge;

a recess formed centrally in the base and having an outer edge inboard of said radially outer peripheral edge of said base, said recess provided with a planar upper surface which is inclined relative to a horizontal reference plane;

a plurality of slots formed in said base extending from said radially outer peripheral edge of said base toward and opening onto said recess; and

15 a passage having one end that opens onto said recess and an opposite end adapted for connection to a vacuum source or a negative pressure source, said one end located inboard of said outer edge of said recess.

20 Preferably, said slots extend in a radial direction.

Preferably, said slots have a collective width substantially equal to or in the same order of magnitude as a diameter of said outer edge of said recess.

25 Preferably, said slots have a collective depth substantially equal to or in the same order of magnitude as the diameter of said one end of said passage.

Preferably, said upper surface has an incline in the order of 1:3.

30 Preferably, said one end of said passage opens onto said upper planar surface.

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**CLAIMS**

The Claims Defining the Invention as are Follows:

1. A suction head for lifting a flowable substance from a surface, said suction head  
5 including at least:

a base for placement on the surface, the base having a radially outer peripheral edge;

- a recess formed centrally in the base and having an outer edge inboard of said radially outer peripheral edge of said base, said recess provided with a planar upper  
10 surface which is inclined relative to a horizontal reference plane;

a plurality of slots formed in said base extending from said radially outer peripheral edge of said base to said outer edge of said recess; and

- a passage having one end that opens onto said recess and an opposite end adapted for connection to a vacuum source or a negative pressure source, said one end located  
15 inboard of said outer edge of said recess.

2. The suction head according to claim 1, wherein said slots have a collective width substantially equal to or in the same order of magnitude as a diameter of said outer edge of said recess.  
20

3. The suction head according to claim 2, wherein said slots have a collective depth substantially equal to or in the same order of magnitude as the diameter of said one end of said passage.

- 25 4. The suction head according to claim 3, wherein said upper surface has an incline in the order of 1:3.

5. The suction head according to any one of claims 1 to 4, wherein said one end of said passage opens onto said upper planar surface.

30

6. The suction head according to anyone of claims 1 to 5, further including filter means supported in said base through which said flowable substance must pass when

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Received 21 May 2001

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travelling from said slots into said passage.

7. The suction head according to anyone of claims 1 to 6, further including an annular seat formed adjacent and radially outward of said outer edge of said recess.

5

8. The suction head according to claim 7, wherein said filter is seated in said annular seat and said suction head further includes a retaining means for retaining said filter in said annular seat.

10 9. The suction head according to claim 8, wherein said retaining means is a clip or ring dimensioned to fit with a snap fit or an interference fit in said annular seat.

10. The suction head according to anyone of claims 1 to 9, further including an impeller seated in said recess.

15

11. The suction head according to anyone of claims 1 to 10, further including a non-return valve provided within, or in fluid communication with, said passage between said one end and a vacuum source or negative pressure source to which said suction head can be connected.

20

12. The suction head according to anyone of claims 1 to 11, wherein said base is circular.

13. The suction head according to anyone of claims 1 to 12, wherein said slots extend  
25 in a radial direction.

14. A liquid recovery system for recovering a flowable substance from a surface or container, said system comprising at least:

a suction head in accordance with any one of claims 1 to 13 and,

30 a vacuum or negative pressure source coupled to said opposite end of said passage to provide a vacuum or suction source for drawing said substance through the slots and hole and directing the drawn substance to a waste collection or disposal means.

AMENDED SHEET  
IPEA/A(1)

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Received 21 May 2001

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15. The system according to claim 14, further including one or more transportable liquid barriers for laying on the surface to form a substantial seal on the surface preventing passage of the substance thereunder, whereby, in use, one or more of said barriers can be placed at appropriate locations to block off drainage points on the surface, or configured to defined a liquid confinement area on the surface in which the head is placed.

16. The system according to claim 15, wherein each barrier comprises a tube made of a liquid impervious material and filled with a non-rigid ballast of a weight sufficient to hold the tube on the surface with a force sufficient to form a seal on the surface.

17. The system according to claim 16, wherein said ballast is a particulate material.

18. The system according to claim 17, wherein said tube is made from a rubber or rubber like material.

AMENDED SHEET  
IPE/VAU

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/AU00/00945

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>												
Int. Cl. 7: A47L 5/36, 7/00, 9/02, 11/30; B08B 5/04; E01H 1/00												
According to International Patent Classification (IPC) or to both national classification and IPC												
<b>B. FIELDS SEARCHED</b>												
Minimum documentation searched (classification system followed by classification symbols) IP : A47L 5/36, 7/00, 9/02, 11/30; B08B 5/04; E01H 1/00												
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched												
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI												
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>												
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X	US 2966694 A (BROWN) 3 January 1961 Whole document	1-10, 12-19										
X	US 5014389 A (OGILVIE et al) 14 May 1991 Whole document	1-10, 12-19										
X	US 5032184 A (OGILVIE et al) 16 July 1991 Whole document	1-10, 12-19										
<input type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&amp;" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention											
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone											
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art											
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
Date of the actual completion of the international search 18 August 2000		Date of mailing of the international search report 31 AUG 2000										
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929		Authorized officer  D.R. LUM Telephone No : (02) 6283 2544										



# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.  
**PCT/AU00/00945**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	5014389	US	5032184				
US	5032184	US	5014389				
END OF ANNEX							

REPLACED BY  
ART 34 AMDT

- 2 -

Summary of the Invention

It is an object of the present invention to provide a suction head and a recovery system incorporating said head that can be used to draw or recover a flowable substance such as a liquid from a surface.

According to a first aspect of the present invention there is provided a suction head for lifting a flowable substance from a surface, said suction head including at least:

a base for placement on the surface, the base having a radially outer peripheral edge;

a recess formed centrally in the base and having an outer edge inboard of said radially outer peripheral edge of said base;

a plurality of slots formed in said base extending from said radially outer peripheral edge of said base toward and opening onto said recess; and

a passage having one end that opens onto said recess and an opposite end adapted for connection to a vacuum source or a negative pressure source, said one end located inboard of said outer edge of said recess.

Preferably, said slots extend in a radial direction.

Preferably, said slots have a collective width substantially equal to or in the same order of magnitude as a diameter of said outer edge of said recess.

Preferably, said slots have a collective depth substantially equal to or in the same order of magnitude as the diameter of said one end of said passage.

Preferably, said recess includes a planar upper surface which is inclined relative to a horizontal reference plane.

Preferably, said upper surface has an incline in the order of 1:3.

Preferably, said one end of said passage opens onto said upper planar surface.

**CLAIMS**

The Claims Defining the Invention as are Follows:

1. A suction head for lifting a flowable substance from a surface, said suction head  
5 including at least:
  - a base for placement on the surface, the base having a radially outer peripheral edge;
  - a recess formed centrally in the base and having an outer edge inboard of said radially outer peripheral edge of said base;
  - 10 a plurality of slots formed in said base extending from said radially outer peripheral edge of said base to said outer edge of said recess; and
  - a passage having one end that opens onto said recess and an opposite end adapted for connection to a vacuum source or a negative pressure source, said one end located inboard of said outer edge of said recess.
- 15 2. The suction head according to claim 1, wherein said slots have a collective width substantially equal to or in the same order of magnitude as a diameter of said outer edge of said recess.
- 20 3. The suction head according to claim 2, wherein said slots have a collective depth substantially equal to or in the same order of magnitude as the diameter of said one end of said passage.
4. The suction head according to anyone of claims 1 to 3, wherein said recess  
25 includes a planar upper surface which is inclined relative to a horizontal reference plane.
5. The suction head according to claim 4, wherein said upper surface has an incline in the order of 1:3.
- 30 6. The suction head according to claim 4 to 5, wherein said one end of said passage opens onto said upper planar surface.

7. The suction head according to anyone of claims 1 to 6, further including filter means supported in said base through which said flowable substance must pass when travelling from said slots into said passage.
- 5 8. The suction head according to anyone of claims 4 to 8, further including an annular seat formed adjacent and radially outward of said outer edge of said recess.
9. The suction head according to claim 8, wherein said filter is seated in said annular seat and said suction head further includes a retaining means for retaining said filter in said  
10 annular seat.
10. The suction head according to claim 10, wherein said retaining means is a clip or ring dimensioned to fit with a snap fit or an interference fit in said annular seat.
- 15 11. The suction head according to anyone of claims 1 to 10, further including an impeller seated in said recess.
12. The suction head according to anyone of claims 1 to 11, further including a non-return valve provided within, or in fluid communication with, said passage between said  
20 one end and a vacuum source or negative pressure source to which said suction head can be connected.
13. The suction head according to anyone of claims 1 to 12, wherein said base is circular.  
25
14. The suction head according to anyone of claims 1 to 13, wherein said slots extend in a radial direction.
15. A liquid recovery system for recovering a flowable substance from a surface or  
30 container, said system comprising at least:  
a suction head in accordance with any one of claims 1 to 14 and,  
a vacuum or negative pressure source coupled to said opposite end of said passage

to provide a vacuum or suction source for drawing said substance through the slots and hole and directing the drawn substance to a waste collection or disposal means.

16. The system according to claim 15, further including one or more transportable  
5 liquid barriers for laying on the surface to form a substantial seal on the surface preventing passage of the substance thereunder, whereby, in use, one or more of said barriers can be placed at appropriate locations to block off drainage points on the surface, or configured to defined a liquid confinement area on the surface in which the head is placed.
- 10 17. The system according to claim 15, wherein each barrier comprises a tube made of a liquid impervious material and filled with a non-rigid ballast of a weight sufficient to hold the tube on the surface with a force sufficient to form a seal on the surface.
18. The system according to claim 17, wherein said ballast is a particulate material.
- 15 19. The system according to claim 18, wherein said tube is made from a rubber or rubber like material.

## TENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

GRIFFITH HACK  
256 Adelaide Terrace  
Perth, WA 6000  
AUSTRALIE

Date of mailing (day/month/year) 24 April 2001 (24.04.01)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference FP13131	
International application No. PCT/AU00/00945	International filing date (day/month/year) 09 August 2000 (09.08.00)

## 1. The following indications appeared on record concerning:

☒ the applicant    ☒ the inventor    ☐ the agent    ☐ the common representative

## Name and Address

OLSEN, Gary  
3 Pembury Road  
Thornlie, W.A. 6108  
AustraliaState of Nationality  
AUState of Residence  
AUTelephone No.  
(08) 9452 2913Facsimile No.  
(08) 9452 2914

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person    ☒ the name    ☐ the address    ☐ the nationality    ☐ the residence

## Name and Address

OLSEN, Gary  
3 Pembury Road  
Thornlie, W.A. 6108  
AustraliaState of Nationality  
AUState of Residence  
AUTelephone No.  
(08) 9452 2913Facsimile No.  
(08) 9452 2914

Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

☒ the receiving Office  
☐ the International Searching Authority  
☐ the International Preliminary Examining Authority

☒ the designated Offices concerned  
☐ the elected Offices concerned  
☐ other:
The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Jean-Marie McAdams

Telephone No.: (41-22) 338.83.38

003981388

Form PCT/IB/306 (March 1994)

# PATENT COOPERATION TREATY

WO 01/15590  
PCT/AU00/00945

**PCT**

## NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:  
GRIFFITH HACK  
256 Adelaide Terrace  
Perth, WA 6000  
AUSTRALIE

Date of mailing (day/month/year) 08 March 2001 (08.03.01)		<b>IMPORTANT NOTICE</b>	
Applicant's or agent's file reference FP13131			
International application No. PCT/AU00/00945	International filing date (day/month/year) 09 August 2000 (09.08.00)	Priority date (day/month/year) 30 August 1999 (30.08.99)	
Applicant OLSEN, Gary			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
**AU,KP,KR,US**

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:  
**AE,AG,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,BZ,CA,CH,CN,CR,CU,CZ,DE,DK,DM,DZ,EA,EE,EP,ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,MZ,NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU.**  
The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).
3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 08 March 2001 (08.03.01) under No. WO 01/15590

### REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

### REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  J. Zahra
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

Form PCT/IB/308 (July 1998)

3870671

REC'D 27 JUN 2001

WIPO PCT

14

Applicant's or agent's file reference APM:JN:FP13131	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).	
International Application No. <b>PCT/AU00/00945</b>	International Filing Date ( <i>day/month/year</i> ) 9 August 2000	Priority Date ( <i>day/month/year</i> ) 30 August 1999
International Patent Classification (IPC) or national classification and IPC <b>Int. Cl. <sup>7</sup> A47L 5/36, 7/00, 9/02, 11/30; B08B 5/04; E01H 1/00</b>		
Applicant OLSEN, Garry Roy		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.																
2.	This REPORT consists of a total of 3 sheets, including this cover sheet.  <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of 4 sheet(s).																
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I	<input checked="" type="checkbox"/> Basis of the report																
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III	<input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																
IV	<input type="checkbox"/> Lack of unity of invention																
V	<input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																
VI	<input type="checkbox"/> Certain documents cited																
VII	<input type="checkbox"/> Certain defects in the international application																
VIII	<input type="checkbox"/> Certain observations on the international application																

Date of submission of the demand 21 February 2001	Date of completion of the report 20 June 2001
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>D.R. LUM</b> Telephone No. (02) 6283 2544



**I. Basis of the report**

1. With regard to the elements of the international application:\*
- ☐ the international application as originally filed.
- ☒ the description, pages 1, 3-9, as originally filed,  
pages , filed with the demand,  
pages 2, received on 21 May 2001 with the letter of 18 May 2001
- ☒ the claims, pages , as originally filed,  
pages , as amended (together with any statement) under Article 19,  
pages 10-12, filed with the demand,  
pages 10-12, received on 21 May 2001 with the letter of 18 May 2001
- ☒ the drawings, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☒ the sequence listing part of the description:  
pages 1-6, as originally filed  
pages , filed with the demand  
pages , received on with the letter of
2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
These elements were available or furnished to this Authority in the following language which is:
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).
3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, was on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished
4. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.
5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-18	YES
	Claims	NO
Inventive step (IS)	Claims 1-18	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-18	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)**

Claims 1-18 meet the criteria set forth in PCT Article 33(2)-(4) for novelty, inventive step and industrial applicability. The prior art published before the priority date does not disclose a passage having one end that opens on to a recess and that the one end is located inboard of an outer edge of the recess.

From the INTERNATIONAL BUREAU

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE  
in its capacity as elected Office

Date of mailing (day/month/year)

05 June 2001 (05.06.01)

International application No.

PCT/AU00/00945

Applicant's or agent's file reference

FP13131

International filing date (day/month/year)

09 August 2000 (09.08.00)

Priority date (day/month/year)

30 August 1999 (30.08.99)

Applicant

OLSEN, Garry

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

21 February 2001 (21.02.01)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

F. Baechler

Telephone No.: (41-22) 338.83.38